REMARKS / DISCUSSION OF ISSUES

Claims 4 and 7-9 are pending in the application. Claims 1-3 and 5-6 are canceled herein, and claims 7-9 are newly added.

The applicants thank the Examiner for providing information about recommended section headings. However, the applicants respectfully decline to add the headings. Section headings are not statutorily required for filing a non-provisional patent application under 35 USC 111(a), but per 37 CFR 1.51(d) are only guidelines that are suggested for applicant's use. (See Miscellaneous Changes in Patent Practice, Response to comments 17 and 18 (Official Gazette, August 13, 1996) [Docket No: 950620162-6014-02] RIN 0651-AA75 ("Section 1.77 is permissive rather than mandatory. ... [T]he Office will not require any application to comply with the format set forth in 1.77").

The Title of the invention is changed herein, as required in the Office Action.

The Office action rejects claim 4 under 35 U.S.C. 102(e) over Connell et al. (USP 5,998,978, hereinafter Connell). The applicants respectfully traverse this rejection.

Claim 4 specifically recites a data-processing circuit that includes asynchronously operating logic elements whose signal-processing rate is dependent on a power supply voltage.

The Examiner's attention is requested to MPEP 2131, wherein it is stated:

> "A claim is anticipated only if ***each and every element*** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The ***identical invention*** must be shown in as ***complete detail*** as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Connell is silent with regard to the use of asynchronously operated logic elements, and silent with regard to a signal-processing rate that is dependent on a power supply voltage.

The Office action asserts that Connell teaches asynchronously operated logic elements at column 3, lines 22-25. The applicants respectfully disagree with this assertion. The cited text of Connell is:

> "...311. Signal processor 112 represents generically any block that exhibits large dynamic impedance variations during normal operation. These variations might take the form of switching noise associated with digital circuits, discrete..."

The applicants respectfully maintain that the terms "any block" and "digital circuits" cannot be said to teach "asynchronously operating logic elements whose signal-processing rate is dependent on a power supply voltage", as specifically claimed by the applicants.

Further, in the cited text, Connell specifically refers to the signal processor 112 as a "block that exhibits large dynamic impedance variations", thereby implying that the signal processor 112 is a synchronous logic block, because asynchronously operated logic blocks do not exhibit large dynamic impedance variations. As taught by the applicants, the use of asynchronously operated logic elements avoids the need for large filter elements, as compared to synchronously operated logic elements.

Because Connell does not teach a data processing circuit that includes asynchronously operating logic elements whose signal-processing rate is dependent on a power supply voltage, as specifically claimed by the applicants, the applicants respectfully request the Examiner's reconsideration of the rejection of claim 4 under 35 U.S.C. 102(e) over Connell.

In the interest of advancing prosecution in this case, the following comments are provided with regard to newly added claims 7-9.

Because of the use of asynchronously operating logic elements whose signal-processing rate is dependent on a power supply voltage, the applicants' invention can be operated over a wide range of power supply voltages using a comparably small number of components (Applicants' page 3, lines 1-2).

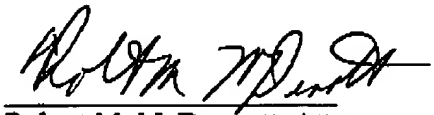
In claim 7, the applicants claim a current source that is configured to provide a current that is substantially controlled by the power source. This claim finds support at applicants' page 4, lines 12-14. Connell's current source is controlled by a reference voltage at 407, and a constant current source 409 (Connell's column 4, lines 8-40), and is designed to operate under normal conditions by providing a current that is a multiple of the constant current source 409.

In claim 8, the applicants claim a structure that uses a comparably small number of components to provide the supply current. Connell's regulated current source, on the other hand, requires a voltage divider network to control the gate of a transistor 406 that is coupled to the constant current source 409.

In claim 9, the applicants claim a further simplification, wherein the current mirror comprises transistors with commonly connected gates, whereas Connell's regulated current source requires the use of an R-C filter at the gate of 403 to further reduce the sensitivity of the supply current to amplitude variations on the supply voltage.

In view of the foregoing, the applicants respectfully request that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Robert M. McDermott, Attorney
Registration Number 41,508
patents@lawyer.com

1824 Federal Farm Road
Montross, VA 22520
Phone: 804-493-0707
Fax: 215-243-7525